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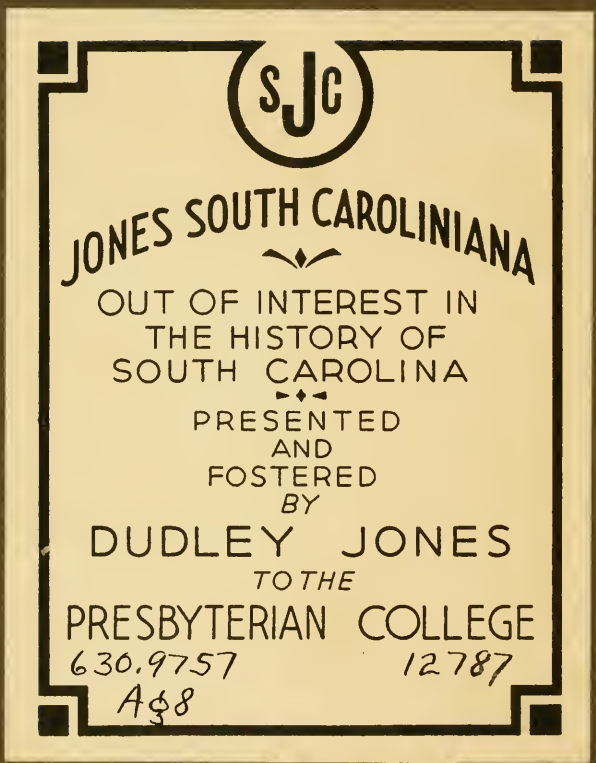

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THE SEA ISLANDS

OF

SOUTH CAROLINA.

THEIR IMMENSE FERTILITY

UNDER

Improved Cultivation and Thorough Drainage.

REPORT OF THE AGRICULTURAL SOCIETY OF JAMES ISLAND

ON

The Present System of Culture of Sea Island Cotton,

READ AT THE SUMMER MEETING OF THE AGRICULTURAL SOCIETY OF SOUTH CAROLINA, AT CHARLESTON, S. C., JULY 8, 1880.

CHARLESTON, S. C.
THE NEWS AND COURIER BOOK PRESSES.
1880.

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THE accompanying Report of the Agricultural Society of James Island, read at the Summer Meeting of the Agricultural Society of South Carolina by Captain E. L. Rivers, speaks for itself in words that cannot be misunderstood. It should be read by every man who is interested in the prosperity of the Low Country of our State, and of Charleston. It should be studied by every planter and land-owner on the coast, for in it lies, in a great measure, the solution of our Coast-Land Problem.

It shows how a thorough system of drainage and cultivation combined with an intelligent application of fertilizers has increased the yield of Sea Island Cotton from about 20 pounds to over 400 pounds per acre.

It shows the sure road by which the Sea Islands, formerly regarded as the garden spots of the State, may be brought to a condition of fertility and prosperity undreamed of in their most prosperous days.

It shows the importance of each agricultural community working together in good fellowship, that the whole may benefit by the experiments made by each individual.

The very publication of this Report shows the broad spirit with which the gentlemen, forming the Agricultural Society of James Island, are actuated, and should be shared in by every planter on our coast.

Finally, if it should be shown that by this thorough drainage the plantations, while increasing so much in yield, are rendered perfectly healthly, so that the owners may live on them throughout the year as on a farm in the up-country, another portion of the Coast-Land Problem, not second to the yield of crop, will have been solved.

Impressed with the importance of this Report, the Agricultural Society of South Carolina has ordered its publication in pamphlet form that it may be read by every planter and land-owner in the Low Country.

12787

The Sea Islands of South Carolina.

REPORT OF THE AGRICULTURAL SOCIETY OF JAMES ISLAND.

In 1867 the maximum crop of sea island cotton on James Island was a little less than 20 pounds to the acre. An examination of the records of their agricultural society discloses the fact that from 1872 the maximum crop of each year has been invariably exceeded by the maximum crop of the following year, until in 1879 it reached 400 pounds to the acre, and that these results were made, at different times, upon every variety of cotton soil known then. It may not, therefore, be uninteresting to those concerned in the agriculture of the low-country to trace with us briefly the history of the cultivation of this staple there since the war, and to gather from it, if possible, the causes which have produced such encouraging results.

When the war closed there returned from the army to James Island to engage in planting a few young men who had been educated for other vocations in life, and who, although heartily in earnest, were sadly ignorant, not only of the first principles of agriculture, but even of the merest details of plantation management. Anxious to avoid mistakes, but having no experience to guide them, they had recourse to frequent consultations among themselves as to what was best to be done. How farm implements were to be handled; how crops were to be worked, and how labor was to be controlled, formed subjects of almost daily discussion among them. As each emergency arose, unless requiring immediate disposition, it was considered in all its aspects, the views of each were taken and, as far as possible, a uniform course of action agreed upon. Thus from their ignorance began that community of thought and practice which has been, perhaps, the underlying cause of whatever progress they have made. Had they been old planters, individualized by past education and confirmed in their ideas of agriculture, while they may have avoided many mistakes in the details of the plantation, they might have seen no necessity for consultation, but relied altogether upon their past experience.

A propitious season and the long rest of the land during the continuance of the war, produced most favorable results in 1866, and planters were thereby misled into neglecting many preparations and precautions which had always been regarded as necessary to success. But the seasons of 1867 and 1868 were two of the most unfavorable ever known upon the seacoast. Constant rains so saturated the soil as frequently to render the fields impassable to those on horseback, and caterpillars coming in August so completely destroyed the crop as to leave, as stated, less than twenty pounds per acre for harvest. Although this disastrous result was usually attributed to caterpillars, yet much interest was awakened upon the subjects of drainage, and efforts were made to put the fields in as good condition as they had been in ante-bellum times. Yet when the crop of 1868 was harvested the result was still most unfavorable, and it was admitted that unless better drainage could be secured, no calculation could be made upon a cotton crop in a wet season.

Inquiries were made as to what methods were used elsewhere. Some began to read and then to discuss the matter, and then the system of under-drainage was first brought under consideration. Many doubts were en-

tertained upon the subject, but as experiments have already been made in the low-country and elsewhere with covered drains made of boards, the weight of opinion was in favor of their practicability. Unfortunately, however, the crops of 1867 and 1868 had left no one in a pecuniary situation to experiment upon the subject, and their immediate action was necessarily postponed.

It had been customary among planters before the war to rest or pasture and mud their lands every alternate year. Nearly every deviation from this practice has resulted in disaster, and the hoof of the cattle was regarded by them as more necessary than any fertilizer with which they were acquainted. These experiences had been entirely disregarded since the war, partly from necessity, as few were able to stock their places, but mainly from convenience, as it was easier and required less outlay to plant the land every year.

Rest was known to be desirable, but it was hoped that the application of commercial manures would return to the soil all that was taken away by the growing crop, and thus its fertility preserved. In 1869, however, slight changes having been made in the fields of one or two plantations, a few acres of land that had been rested were added to these fields and, although the crops were completely destroyed by caterpillars, yet the results upon these spots were so far beyond the land planted over that many were led entirely to rearrange their plantations, and great efforts were made to place cattle upon the lands which had been so unsuccessfully cultivated since 1866.

The result of the crop of 1870 proved the efficiency of this method, and when in 1871 the fields that had been pastured yielded over 100 pounds to the acre, worth at that time one dollar per pound, with but slight expense for manure and none for underdrainage, this plan was universally followed. Stock was purchased and the plantation divided into two fields, the one planted, the other pastured.

But while pasturing and mudding the land and the absence of caterpillars for two years had given this new impetus to the cultivation of long cotton, close observation revealed the fact that many parts of the field yielded but small returns owing to imperfect drainage, and one planter was induced to lay down covered drains in one field in 1872, and thus the system of under-drainage was practically introduced. This system has proved completely satisfactory to all who have used it, and is now generally adopted.

Before the war those who had given any attention to the selection of seed were content if they obtained a variety of satisfactory staple which yielded one pound of lint from four pounds of seed cotton for ordinary varieties, and one pound of lint from five pounds of seed cotton for fine varieties. Strenuous efforts were now made by one of our oldest planters to reduce this proportion, and to-day there is planted fine cotton which yields one pound of lint from three and a half pounds of seed cotton.

The depreciation in the value of cotton consequent upon the heavy crop of 1872, and the return of caterpillars, temporarily paralyzed the efforts of those who had so many other difficulties to contend with, and the less hopful began seriously to consider the necessity of abandoning the cultivation of long cotton. Efforts, however, having been made elsewhere to destroy the worms with Paris green, experiments with it were tried here upon a limited scale in 1873, and with such complete success as to remove all fears of loss from these pests.

While planters had thus far supplied their crops with ammonia mainly by the use of cotton seed and phosphoric acid by the use of acid phosphate, they had relied solely upon mud for their supply of potash. At the suggestion of Dr. Ravenel experiments were made with kainit as a substitute for mud, and with such marked success that whereas in 1872 mud was considered absolutely necessary, last year an average of 355 pounds per acre was made upon a considerable area (47 acres) without a single cart-load of mud having been used.

Such is a brief outline of the cultivation of long cotton on James Island, and it will be observed that the important agencies in the work have been:

First. The unity of the community resulting in concerted action, and in constant interchange of opinions and experiences and in uniformity in the control of labor.

Second. The proper physical condition of the soil, rendered so by the use of underdrains, the use of cattle in making our light and friable soils more compact, and by the use of mud in incorporating the clay of the mud with such soils, and thereby increasing their consistency.

Third. The liberal and judicious use of elements of plant food as are necessary for the growth and development of the plant.

Fourth. Properly selected seed.

Fifth. Protection of the crop from the ravages of the caterpillar by the use of Paris green.

The following is a statement of maximum crops of sea island cotton on James Island since 1872:

1872	lbs. 163	1876	lbs. 245
1873	205	1877	309
1874	211	1878	329
1875	215	1879	415

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